

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014163**Date Inspected:** 16-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** You Qi Guo.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as South tower lift3 Skin A man access shield plate, and south tower lift 3 skin D side brackets. The weld designations reviewed are as follows.

SSD1-FASA3-1C/E-17, 21

ETM-1B/C-17-1-S, ETM-1B/C-18-2-S, ETM-1B/C-19-1-S

NDT Notification No-005743

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower shear plate A22 and A28 Bearing Plate. The weld designations reviewed are as follows.

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WD1-A22A/B-18, 21, 25, 26
WD1-A28A/B-25, 28, 29, 32
NDT Notification No-005745

This QA Inspector observed the following work in progress:

BAY 11:

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, 041271. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-10-119M-1-35B, 7A. ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 041271. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-10-119M-1-9A. ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040655. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-123M-1-79, 83, 80, 84. ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2113 and WPS-B-T-4113-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, 044551. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-5A, 74A. ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044551. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-10A. ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040724, 202100. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-143M-2-5A, 74B, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 040690. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as WD1-STSA4-5-119M-1-5A. ZPMC QC Identified as Liu Dao Feng, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 040690. Perform Shielded

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Metal Arc Welding (SMAW) on Tower Strut. Joint identified as WD1-STSA4-5-119M-1-7B. ZPMC QC Identified as Liu Dao Feng, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2212-Tc-U5b.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 042218, 205649. Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as SD1-A20B/B-51, 54. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2331-Tc-P4-F.

BAY 10

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, Perform Flux Core Arc Welding (FCAW) on Façade channel. Joint identified as ND1-SFSA4-710-3-7, 8. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, Perform Flux Core Arc Welding (FCAW) on Façade channel. Joint identified as ND1-SFSA4-85-3-7, 8. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

Ultrasonic Testing:

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performing UT on Grillage plate weld of South Tower lift 5. Joint identified as SSD1-TL5-1B/F-35A/B, 2A/B, at location Bay 10. For more information see below attach photo number 1.

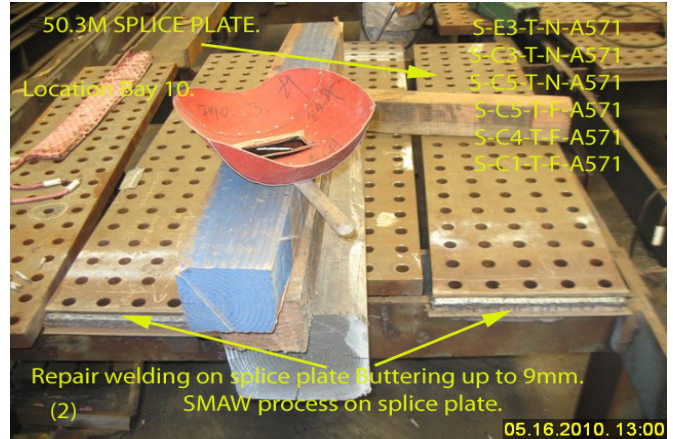
SMAW Process Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 044511, 056200, 500363, 052493, Perform Shielded Metal Arc Welding (SMAW) on 50.3M Splice plate build up 9mm. Item identified as S-E3-T-N-A571, S-C3-T-N-A571, S-C5-T-N-A571, S-C5-T-F-A571, S-C4-T-F-A571, S-C1-T-F-A571. ZPMC CWI Identified as You Qi Guo with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-Repair. For more information see below attach photo number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer